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| 10/564,322 | 06/26/2006 | Kai Desinger | 3444 | 8850 |
| 21834 7590 09/14/2009 BECK AND TYSVER P.L.L.C. 2900 THOMAS AVENUE SOUTH SUITE 100 MINNEAPOLIS, MN 55416 | | | | |
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| SCOTT, AMANDA L | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,322

Applicant(s)

DESINGER ET AL.

Examiner

AMANDA SCOTT

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/04/2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-4, 6-8 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire et al. (US 5,913,854) in view of Desinger (US 6,723,094).

Regarding claim 1, 6 and 10, Maguire et al. disclose a surgical probe (Fig. 1, #2) comprising a handle (Fig. 1, #4) and a shaft (Fig. 1, #6) which is connected to the handle (column 3, lines 43-44) and has two axially mutually spaced electrodes (one or more electrodes along the shaft, column 1, lines 33-34), of which an electrode nearer the handle forms a proximal electrode and the other electrode which is far from the handle forms a distal electrode (Fig. 1, #18, shows an electrode nearer to the handle than the adjacent distal electrode), wherein the electrodes respectively form an outside surface of the shaft (electrodes on the outside surface of the shaft, Fig. 1, #18) and are separated from each other by an insulator (alternating electrodes and polymer sections, column 4, lines 3-5), wherein the outside diameter of the two electrodes and the outside diameter of the insulator are approximately equal (approximately equal outside diameters of adjacent electrode and polymer sections, Fig. 2, #18 and #24) and wherein

the shaft has a fluid passage for a cooling fluid, which extends in the interior of the shaft from the handle into the distal electrode (a handle with a fluid port which permits cooling fluid to be directed through shaft to cool electrode, column 3, lines 60-63), characterized in that the shaft has a distally closed hollow body which is connected to the handle and forms the distal electrode (a fluid passageway so that cooling fluid after reaching the distal end of the tip section of the catheter can be returned to the source so the fluid does not flow into the body but rather recirculates, column 5, lines 15-19), carries the insulator as well as the proximal electrode (shaft with electrodes and polymer sections, insulator, Fig. 2, #10) and an insulating layer which is arranged in the radial direction between the hollow body and the proximal electrode (PTFE, insulating layer, could be used to cover the inner surface of the electrode and shaft and not impede heat transfer between the cooling fluid and electrode, column 2, lines 4-9); and further characterized in that the probe possesses a mechanical strength that permits insertion of the shaft into body tissue (ablate cardiac tissue, col. 7, lines 1-15) but fail to disclose a hollow body that is electrically conductive; the hollow body shaped to a point at its distal end; and a hose in the interior of the fluid passage with a mouth opening in the proximity of the closed distal end of the fluid passage, which hose is so arranged and connected that a cooling fluid is to be passed through the hose into the proximity of the distal end of the fluid passage, there issues from the mouth opening of the hose and can flow back between the hose and the wall of the fluid passage to the proximal end of the shaft.

However, Desinger discloses a front cylinder (10) which forms the distal end of the instrument, where the front cylinder terminates at its free end in a point (12), and

adjoining the front cylinder is a tubular outer conductor (2) which in its interior accommodates an insulating tube through which extends an inner conductor, which is electrically and mechanically connected to the front cylinder (col. 11, lines 16-29). In addition, Desinger discloses a flushing hose (110) which discharges fluid at its distal end, which then in contact with the inside wall of the tube portions flows back through the hollow duct to the proximal end and cools the two tube portions (col. 14, lines 38-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a hollow body inner conductor as taught by Desinger, since Desinger states at column 2 lines 5-15 that such a modification would connect the electrodes to an ac voltage source by the inner conductor.

Regarding claim 2, Maguire et al. disclose the insulating layer arranged both between the hollow body and the proximal electrode and also between the hollow body and the insulator (PTFE could be used to cover the inner surface of the electrode and shaft and not impede heat transfer between the cooling fluid and electrode, column 2, lines 4-9).

Regarding claim 3, Maguire et al. disclose that the insulating layer is formed by shrink tube (column 2, lines 4-9). It is well known in the art that shrink tube is manufactured from thermoplastic material such as PTFE.

Regarding claim 4, Maguire et al. disclose that the proximal electrode is formed by a metal tube of a diameter which is substantially equal over its length and of substantially equal wall thickness (column 6, lines 48-50).

Regarding claim 8, Maguire et al. disclose that in the region of the distal electrode the hollow body is of an outside diameter which is approximately equal to the outside diameter of the proximal electrode or of the insulator (approximately equal distal hollow body diameter to the outside diameter of the proximal electrode or the insulator, Figs. 1 and 2).

6. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire et al and Desinger as applied to claim 1 above, and further in view of Pantages et al. (US 6,529,760).

Regarding claim 9, Maguire et al. and Desinger disclose the invention set forth above but fails to teach the hollow body is of a smaller diameter in the region of the insulator and the proximal electrode than in the region of the distal electrode.

However, Pantages et al. teach conductor (66) has a stepped tubular section (70) covered with an insulator (74) which inserts into the conductive ring (60; column 10, lines 5-13; and Figure 2).

It would have been obvious to one of ordinary skill in the hand-held electrosurgical art to have modified Maguire et al. and Desinger with a hollow body design as taught by Pantages et al. because it would have enabled the distal region to be inserted easier into tissue.

7. **Claims 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire et al. and Desinger as applied to claim 1 above, and further in view of Crites et al. (3,568,660).

Regarding claim 11, Maguire et al. and Desinger disclose the invention set forth above but fail to disclose that at its proximal end the shaft is connected to the handle and is there partially embedded in sealing material in such a way that the tube forming the proximal electrode is completely embedded at its proximal end in the sealing material while the proximal end of the hollow body projects from the sealing material.

However, Crites et al. teach a handle fitted over the cylinder and an electrically insulating epoxy applied over the exposed surface of the cylinder and a surface of the handle with the proximal ends of the conductors soldered to the conductors (column 5, lines 31-46).

It would have been obvious to one of ordinary skill in the hand-held electrosurgical art to have modified Maguire et al. and Desinger with electrically insulating epoxy applied over the exposed surface of the cylinder and a surface of the handle with the proximal ends of the conductors soldered to the conductors as taught by Crites et al. because it would have enabled the proximal electrode to be preferably electrically contacted within the sealing material.

Regarding claim 12, Maguire et al. and Desinger disclose the invention set forth above but fail to teach that the proximal electrode is electrically contacted within the sealing material.

However, Crites et al. teach the proximal ends of the conductors are soldered to the conductors (column 5, lines 45-46). It would have been obvious to one of ordinary skill in the hand-held electrosurgical art to have modified Maguire et al. and Desinger

with proximally soldered ends as taught by Crites et al. because it would have enabled the proximal electrode to be electrically contacted within the sealing material.

Response to Arguments

8. Applicant's arguments filed 07/27/2009 have been fully considered but they are not persuasive. The arguments lie solely on a petition to accept the claim of priority filed 07/27/2009. The petition has been dismissed on 08/10/2009.

Conclusion

9. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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/A. S./
Examiner, Art Unit 3739

/Linda C Dvorak/
Supervisory Patent Examiner, Art
Unit 3739